GARRIGUES (H. J.)

REST AFTER DELIVERY.

BY

HENRY J. GARRIGUES, A.M., M.D.,

Physician to the Gynecological Department of the German Dispensary;
Fellow of the American Gynecological Society, etc.

WITH FIVE WOODCUTS.

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(With five woodcuts.)

In this country as well as abroad, we find the most opposite principles followed by equally eminent practitioners in regard to the management of the puerperal state in normal cases. Are we to infer that the management of childbed is an indifferent thing, and that equally good results are obtained by those who favor long rest after delivery, and by those who let their patients rise the very first day following their confinement? This does not seem likely. It is, therefore, well worth trying to arrive at a rational solution of the question, how long women ought to stay in bed after delivery?

There is another point of importance connected with the question. As we all know, the public, especially the sex which is personally most interested in child-bearing, take great interest in everything connected with this function. Now they are entirely bewildered by the discrepancy in the rules followed by different accoucheurs, and if they happen to have something to do with a confinement that is managed on other principles than those they have seen before, they are very apt to cast distrust upon the last physician, and question his knowledge and skill. It would, therefore, be highly satisfactory if it were possible to come at least somewhat nearer to one another in our principles and our practice. It may seem impossible now; but we have seen other questions, on which there used to be no less disagreement, become so settled that at least the vast majority of practitioners, and among them the very best ones, have come to unanimity in regard to them.

I.

In this country, Dr. Wm. Goodell, of Philadelphia, may be taken as the chief representative of the class of physicians who recommend to shorten the lying-in period as much as pos-

sible. In his paper on *Prevention and Treatment of Puerperal Diseases at the Preston Retreat*,[1] he says: "On the morning following the day of her labor, the woman slips into a chair whilst her bed is making. This is repeated once or twice a day until the fourth or fifth day, when she, if so disposed, gets up and dresses herself. No patient quits her bed against her will, yet the force of example is so great that very few care to stay in bed when they see their companions up and about."

I have personal knowledge of only one case in which a similar treatment was prescribed and carried out. The patient is a friend of mine, and has given me the particulars. In her first two confinements she was kept in bed ten days and all went well. In the third, which took place in another locality, her doctor made her rise on the fourth day, against the wishes of her mother, the widow of a physician. She felt unwell, but he told her that she was only weak, and on the fourteenth day engaged her to take a ride in a carriage, which nearly cost her her life. She was taken with chills followed by hemorrhage and convulsions. Since then I have delivered her twice, and both times, in spite of very easy deliveries and antiseptic precautions, she had some slight parametritis which protracted her stay in bed for weeks, and which was probably due to a rekindling of a similar condition brought on by exposure during her preceding delivery. I mention this case only as an example of what may happen, and am far from drawing any general conclusion from it. In the Preston Retreat, 756 women had been treated in this way when Dr. Goodell's paper was published, and the total mortality from all causes had only been six—certainly a most satisfactory result, so far as it goes.

Dr. Goodell adduces the following reasons in favor of encouraging women to get up early: First. Labor being a physiological process, it should not be made to wear the livery of disease. Second. The upright position excites the uterus to contract, and lessons the amount and duration of the lochia. Third. Uterine diseases are hardly known among the nations whose women early leave their beds. Fourth. Experience has shown him that convalescence is rendered far more prompt and sure.

On the first head I would remark that, although parturition

[1] American Supplement to the Obst. Journ. of Great Britain and Ireland, July–August, 1874.

of course is a physiological process, it is one in which a transition from the normal condition to the pathological is extremely common, and that the women of our time are no more in the same physiological condition as in the infancy of mankind. No child is born without leaving, in the obstetric canal of its mother, wounds which very easily become the door through which disease and perhaps death enters her organism. It is very doubtful if this was always so. May be the fetal head, by hereditary development of the brain in consequence of civilization, has become larger.[1] The size of the head in the new-born Indian is said to measure from one-eighth to three-eighths of an inch less in its various diameters, the pelvis of the different classes of females being about the same.[2] On the other hand, the tissues of the civilized woman have no doubt become weaker and are more easily torn. The nervous system, with its manifold influences on body and mind, has become more sensitive, and presents new dangers.

Even if we grant that the upright position may promote uterine contraction, which dogma has yet to be proved, and might be founded on a preconceived view of the situation and shape of the uterus which presently will be proved to be erroneous, it must be borne in mind that displacements, especially anteversion and anteflexion, are liable to be brought about by the weight and flaccidity of the uterus before it has sufficiently contracted to resist the effects of gravitation and pressure. Dr. Goodell says that the upright position lessens the amount and duration of the lochial discharge, but other investigators have come to the opposite result. Küstner,[3] of Jena (Germany), found that in puerperæ who left the bed before the ninth day after confinement the lochial discharge continued bloody longer than in those who kept the recumbent position for a longer time. The amount of the lochia may be considerably diminished, and its poisoning qualities obviated, by other means which will be detailed later. In the non-pregnant woman, the canal of the uterus forms about a right angle

[1] See my article on the Obstetric Treatment of the Perineum in Amer. Journ. Obst., April, 1880, p. 244.

[2] Dr. Sizer: Brooklyn Proceedings, October, 1877. Vol. II., p. 220.

[3] Archiv für Gynäkologie, 1879, Vol. XV., p. 73.

with that of the vagina; in the puerpera, the womb is much more anteverted and at the same time anteflected. Consequently the lochial discharge is pent up in the uterus, in the standing and sitting postures, while in the recumbent it is easily discharged into the vagina, whence it may be removed by injections.

Dr. Goodell points to the ancient Greek and Roman women, who arose and even bathed in a running stream, very shortly after delivery, in some cases on the very day. It seems to me that it would be dangerous to conclude from passages in the classics that this practice had no bad consequences. We know from medical writers of those ancient times that the women had uterine troubles. May be that their want of care during the puerperal state was the very thing which caused them.

I think that Dr. Goodell's excellent primary results are due to his other measures, such as good food, relief from pain, prevention of infection, etc. But I do not think that the final results can be judged of within sixteen days, the average time the patients stay in the Retreat after delivery. If a thousand women who have got up the morning after their confinement, and walked about after four days, were compared with a thousand others who have been kept quiet for a couple of weeks, I believe we would find more flexions, versions, subinvolutions, prolapses, etc., in the former class than in the latter. This supposition gains the dignity of an observation when we see how much more common these diseases are among the lower classes who cannot afford to stay long in bed, and who return as quick as possible to the duties of their household unless actually broken down by acute disease.

Dr. J. T. Johnson, of Washington, in a timely paper read before the American Gynecological Society,[1] says: "The colored women of the South are pointed out as remarkable examples of early getting up after delivery, and the fact emphasized that nine days in bed produces debility and prolongs the period of convalescence, and that the puerperal month is shortened from one to two weeks by them with advantage. In a considerable experience at one of the Freedmen's hospitals, after the late war, I had an opportunity to test the truth of this theory. Many of these

[1] Transactions, 1879, Vol. IV., p. 306.

women could be kept in bed but a few days, and would stand, walk, go up and down stairs, attend to their children, and perform other light duties within a week or ten days after confinement. They were impatient of control, thought our rules regarding cleanliness and quiet unnecessary, adhered to their time-honored custom of early getting up, and often eluded the watchfulness of the nurses. In the dispensary service attached to this hospital, I had abundant opportunity to witness the effects of this practice. Patients suffering from the effects of subinvolution, uterine displacements, and hemorrhage, presented themselves for treatment more frequently than from any other ailments."

Most of the leading accoucheurs in Europe either retain the old practice of keeping puerperæ in bed for nine days or even prolong the rest in a recumbent position. Scanzoni[1] sanctions in general the custom that lying-in women should not leave their beds before the ninth day, because this corresponds about with the period in which dangerous diseases most frequently make their appearance after delivery, in which the increased susceptibility subsides, and in which the functions of the bowels and breasts acquire some regularity. The same is taught by Naegele.[2] Siebold[3] recommends rest in bed till the eighth or tenth day. Schroeder[4] prescribes an uninterrupted recumbent position for at least a week, and longer if it agrees with the patient. Spiegelberg[5] says that the woman shall keep her bed for eight or ten days. If she is entirely well she need not submit slavishly to this rule. She may leave her bed at the end of the first week for a few moments, but she ought never to walk about before the time indicated above, and still less undertake any domestic work, even in her own room. Cohnstein[6] thinks that corporeal rest extended over a fortnight is absolutely necessary, and Bischoff[7] follows the same rule. Robert Barnes[8] says that the upright posture within the first

[1] Scanzoni: Geburtshülfe, 3d edition, 1855.
[2] Naegele: Geburtshülfe, 7th edition, 1864, p. 289.
[3] Siebold: Geburtshülfe, § 762.
[4] Schroeder: Geburtshülfe, 1870, p. 162.
[5] Spiegelberg: Geburtshülfe, 1877, p. 232.
[6] Cohnstein: Geburtshülfe, 1871, p. 95.
[7] Schmidt: Jahrbücher, 1876, 6.
[8] Barnes: Diseases of Women, London, 1873, p. 472.

week or fortnight will surely increase the local vascular tension and promote displacement of the uterus. Playfair[1] expresses similar views more explicitly. "It is customary," says he, "among the better classes, for the patient to remain in bed for eight or ten days; but, provided she be doing well, there can be no objection to her lying on the outside of the bed, or slipping on to a sofa, somewhat sooner. After ten days or a fortnight she may be permitted to sit on a chair for a little; but *I am convinced that the longer she can be persuaded to retain the recumbent position, the more complete and satisfactory will be the progress of involution*,[2] and she should not be allowed to walk about until the third week, about which time she may also be permitted to take a drive." Chailly-Honoré[3] teaches that she may be permitted to sit on a chair for an hour or two after nine to fifteen days, and that when she has done so for two or three days, she may try her strength by taking a few steps. Finally Gallard,[4] of Paris, goes still farther, and declares that he does not know anything more dangerous than the popular habit of limiting to nine days the rest of confined women. He would like to see this period extended to at least twenty or twenty-five days. Thus, he thinks, would be avoided many inflammations of the genital system that are only due to this premature exertion.

I am not prepared to say that no European authors have spoken in favor of a short lying-in period, but on the other hand I have by no means picked out those I quote. I state just what I find in the books at hand, which show that, in the three chief countries of Europe, all the latest publications that have come to my notice recommend an absolute rest in the horizontal position for one, two, or even three or four weeks after parturition. By private conferences I have found that, likewise here in New York, great obstetricians are in favor of prolonged rest after delivery.

II.

After having thus seen the practice of prominent obstetricians in different parts of the world, we will consider the

[1] Playfair: Midwifery, London, 1876, vol. II., p. 252.

[2] The italics are mine.

[3] Chailly-Honoré: Traité pratique de l'Art des Accouchements, 6th edition, Paris, 1878.

[4] Gallard: Maladies des Femmes, Paris, 1873, p. 221.

anatomical and physiological facts which bear upon the subject.

First of all let us examine the condition of the womb in the puerperal state. Boerner[1] has instituted exact measurements in sixty-four cases, both internally by aid of thick sounds, and externally by the measure-stick. Immediately after delivery the length of the uterus varied between twelve and nineteen centimetres (four and three-quarters and seven and one-half inches); a fortnight later it was yet between nine and twelve centimetres (three and one-half and four and one-half inches), whilst the length of the uterine cavity in the non-puerperal state is from six to seven centimetres (two and one-half to two and three-fourths inches). At the first examination the fundus stood eleven centimetres (four and one-half inches) above the symphysis pubis, and the uterus measured in width ten centimetres (almost four inches). The elevation above the symphysis diminishes during the first twelve days to five and one-fifth centimetres (two inches), and on the twenty-second day it is still four and six-tenths centimetres (one and three-fourths inches). It appears, then, that the uterus, even at the end of the third week, rises above the brim of the pelvis, when it is raised up from its anteflexed position behind the symphysis. The normal size is first reached when it stands at most three centimetres (one and one-sixth inches) above the symphysis pubis.

Some caution has to be used in taking these measures. The uterus, during its retraction, becomes more and more anteflected, so that the part felt above the symphysis pubis at last is not the fundus, but the posterior wall of the body. Accordingly, the fundus has to be straightened before measuring.[2]

It is likewise very important to distinguish the plane that corresponds with the brim of the pelvis, and consequently slopes down in the erect posture, forming with the horizontal plane an angle of about sixty degrees, from a plane laid horizontally through the upper border of the symphysis, the body

[1] Boerner: Ueber den puerperalen Uterus. Graz, 1875.

[2] May be that the omission of this precaution explains that Dr. A. D. Sinclair, of Boston, in his 108 measurements found an average of only 3.02 inches; maximum, 4½; and minimum, 2¼ inches. It must also be noted that his measures were taken at different times after confinement averaging 16 days, while Boerner's were all taken 14 days after (see American Gynecological Transactions, 1879, Vol. IV., p. 238).

being in a perpendicular position. These two planes are very often confounded in text-books, and consequently the student is liable to get an erroneous idea of the size and the place of the uterus. The fundus surmounts almost always the latter plane, while, according to Sappey,[1] in the great majority of cases it does not attain the plane corresponding with the brim of the pelvis, but is situated from two to two and one-half centimetres (three-quarters to one inch) below it. Sappey made his researches on the cadaver, and it is not unlikely that the elevation in the living woman is somewhat higher. Thus Dr. F. P. Foster, of this city, in his most valuable contribution to the Topographical Anatomy of the Uterus and its Surroundings,[2] makes the fundus rise a little above the plane laid through the brim of the pelvis. However this may be, it appears from Boerner's measurement that the fundus of the uterus, at the end of the second week, is still about one inch higher, and at the end of the third week more than half an inch higher than in the non-puerperal state.

Heschl's[3] investigations about the *weight* of the uterus after delivery are still more significant. According to this author, it weighs from twenty-two to twenty-four ounces immediately after delivery; at the end of the first week, from nineteen to twenty-one; at the end of the second week, from ten to eleven ounces; at the end of the third week, from five to seven ounces, and it does not reach its normal weight, which is about an ounce and a half (varying from a little above one to almost two ounces) before the end of the second month.

It appears from these figures that the womb has only lost little in weight at the end of the first week, that the greatest diminution takes place during the second week, and that at the end of the third it is still three or four times heavier than the non-puerperal uterus.

Recently these investigations have been supplemented by those of Küstner, who has ascertained the *shape and the place* of the puerperal uterus in the recumbent and in the upright postures by direct examination with sounds introduced through the vagina and the bladder. He uses Schultze's method of

[1] Sappey : Anatomie Descriptive, vol. III., p. 662.
[2] Amer. Journ. Obst., January, 1880, vol. XIII., p. 32.
[3] Zeitschrift der Wiener Aerzte, vol., VIII., 1862.

measuring, which has been described in the above-mentioned article of Dr. Foster. Such experiments would be absolutely impossible in this country. Our conscience, as well as fear of a suit for malpractice, and possibly man-slaughter, would restrain the physician, and not even the poorest woman in a charity hospital would submit to having a board pressed against her abdomen, sounds introduced into uterus and bladder, staves hooked to her womb, and being made to stand up and lie down at the command of the explorer. Besides I do not think these methods are necessary. A guillotine, regulated by clock-work, is not needed for chopping wood. By mere palpation and per-

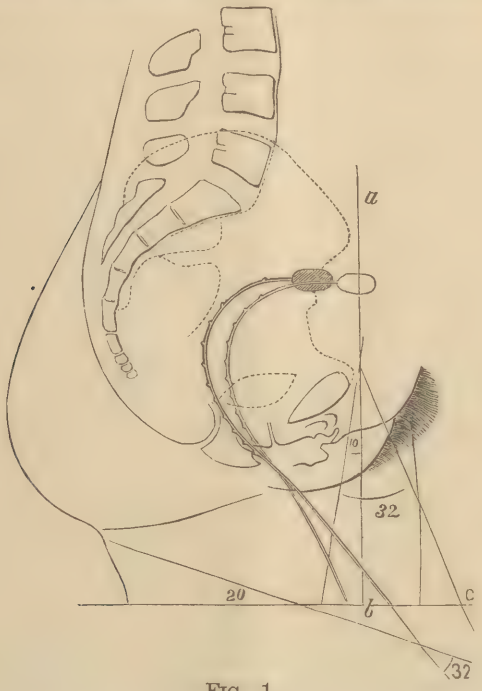

FIG. 1.

cussion, I think, we can arrive at all the exactness necessary for practical purposes. I, for one, have not learned a single thing by Küstner's investigation which I did not know beforehand, as a result of palpation, percussion, and reasoning, except the slight retroprosition of the womb in the erect posture. But since these unjustifiable experiments have been made with living women, the very moment they had gone through the agonies

of labor-pains, I am delighted to reproduce the results arrived at, for, of course, exact measures beat all evaluation and reasoning; and as they confirm entirely the views upon which I have based my practice, and the advice given on a previous occasion,[1] as to the necessity of rest after delivery, I can find no better arms to contend with.

In the following diagrams which I reproduce from Küstner's article,[2] the fine outlines show the condition when the woman was lying on her back; the dark outlines of the same objects, the condition as found when she was standing erect.

Fig. 1 shows, by the shape and direction of the sound in-

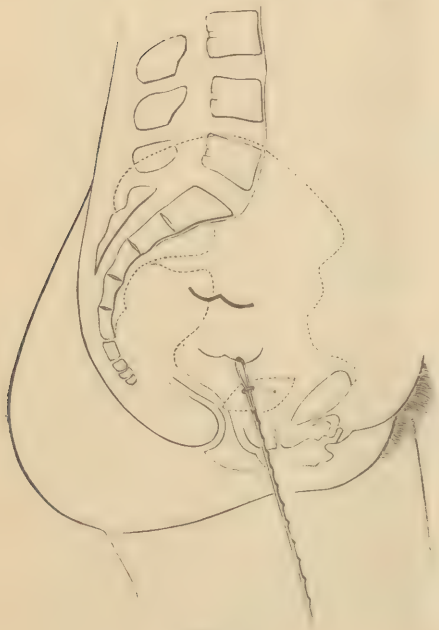

Fig. 2.

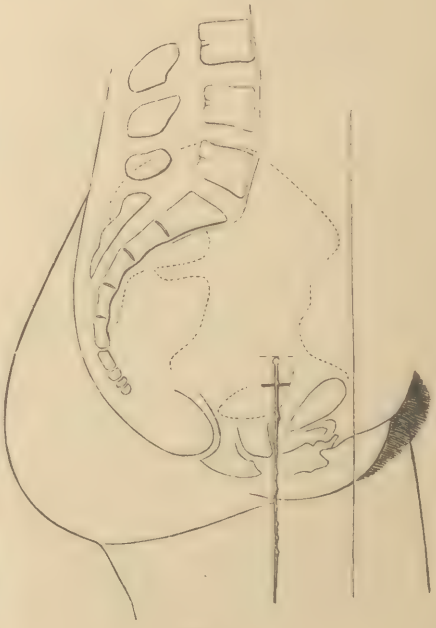

Fig. 3.

troduced to the fundus, that the puerperal womb is anteflected, and that when the woman stands upright, the whole womb is displaced somewhat backwards.

Fig. 2 shows that the vaginal portion is removed from the vulva by standing up, which, taken together with what will be stated about the position of the fundus, proves that the ante-

[1] Brooklyn Proceedings, 1877.
[2] L. c., pp. 46, 54, 56, and 60.

version and anteflexion already present in the dorsal decubitus are made worse. In this experiment, a light, graduated metallic stem with a double hook at the end is fastened to the anterior lip of the vaginal portion, and it is then noted that, on rising, the stem projects less than in the dorsal decubitus.

Fig. 3 shows a graduated probe introduced through the urethra, in order to measure the distance of the uterus from the meatus urinarius. In this way it was found that the fundus in many cases sinks down when the woman rises. By combining this test with that of figure 2, it was found that the

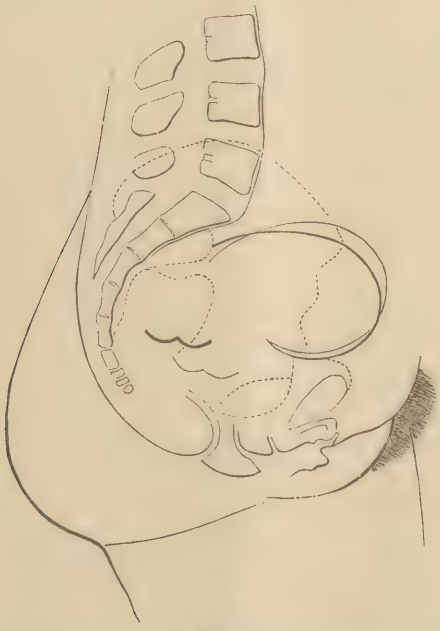

Fig. 4.

erect posture produces increased anteflexion and anteversion. At the same time it was ascertained that, in the erect posture, the point struck by the probe was situated more anteriorly than in the recumbent position, and that when involution had almost been perfected, the probe yet reached the uterus when the woman lay down, but passed in front of the fundus when she stood on her feet. This proves that the uterus is pushed backwards, retroposed, in the erect posture.

In Fig. 4, the author has drawn the whole uterus, such as its

shape and position have been ascertained by the various methods just mentioned. It shows graphically that in the upright position the uterus is more anteverted, more anteflexed, and situated more backwards towards the sacrum than when the woman lies on her back.

If we only compare the two outlines the difference seems slight, but if we remember that the one is that of the womb when the woman is on her back, the other when she stands on her feet, in other words, that we have to turn the whole figure ninety degrees about, the difference becomes enormous. In order to make this point clearer, which has been entirely overlooked by Küstner, I have in figure 5 reproduced the position and shape of the uterus and the vertebral column as they are when the woman lies on her back. By comparing this figure

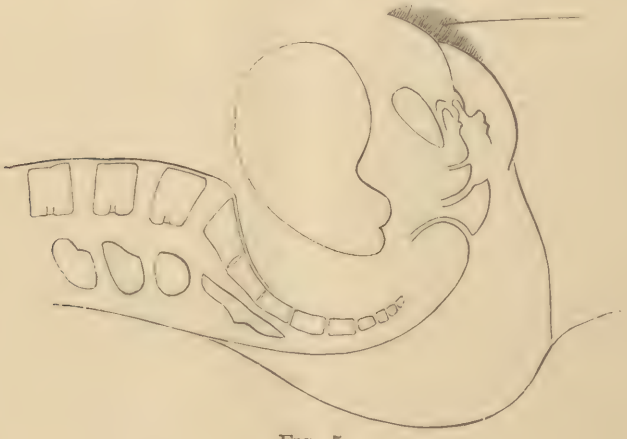

Fig. 5.

with the dark outlines in fig. 4 the reader will see the difference. When she lies on her back she is just in the very best imaginable posture for counterbalancing the anteflexion and anteversion physiologically inherent to the puerperal state. The uterus is, as it were, put on the stretch by mere gravitation, and the same force helps to bring it back into the true pelvis from which it has been lifted up in order to give room for the growing child. When she stands up, on the contrary, we see gravitation work under the most favorable angle for perpetuating and increasing this anteflexion and anteversion, and produce a hanging belly (abdomen pendulum).

What is said here about the upright position applies with still more force to the sitting, of which Küstner does not speak at all. Here to the disastrous effect of gravitation is added that of pressure. The room between the pelvic bones below and the ribs with the diaphragm above becoming smaller, the contents of the abdomen are necessarily pressed forward, as every one can ascertain by holding his hand on his abdomen whilst changing from the standing to the sitting posture. A low rocking-chair well hollowed out, so as to fit the body, the pride of the American chair-maker, would be worst of all, because here the compression would be greatest.

One would not think that a man, whose work so entirely corroborates the views I have expressed, should find any fault with them, but nevertheless he disagrees entirely with me. The explanation of this is simply that he gratuitously ascribes a thing to me which is a mere fancy of his own. He pretends that I have "opposed the treatment of Dr. Goodell, fearing that it should give rise to an acute retroflexion." Of course such a preposterous idea never entered my head, and there is not the slightest allusion to it in my old paper on the subject. When I spoke of the danger of flexions and versions arising, it was not a retroflexion and retroversion I had in view, but of course an *anteflexion* and *anteversion*. But these diseases do not seem to be recognized by Dr. Küstner. I would not speak at all of his views, which have no particular interest for American readers, if they were not those of his chief Schultze, and if these had not been reproduced and praised in this country by Dr. Van de Warker, of Syracuse, N. Y.[1] According to Schultze, as will be seen by his diagrams, the non-puerperal uterus lies horizontally, and is in parous women so much anteflected as to form almost a right angle. I have not measured the inclinations of the uterus with the cumbrous apparatus of Schultze, but I am, from my experience with the hands and the sound, profoundly convinced that his results are erroneous, and I am happy to see that Dr. Foster, who has investigated this question with all geometric exactness, has come to the same result (l. c., p. 50).

I believe that the non-puerperal uterus, when the bladder is empty, forms about a right angle with the vagina, and that

[1] Amer. Journ. of Obst., 1878, vol. xi., p. 541.

the space occupied by the full bladder in front of the uterus is partly taken up by the small intestines when it is emptied; and furthermore, that the body of the uterus forms a very open angle with the cervix, in other words that a very slight anteflexion is normal.

Retroflexion may indeed result from faulty management of the lying-in period, but the cause is then of course just the opposite. If the woman remains too long a time on her back, and if a very tight binder is used, the uterus may gradually be tilted so much backwards that it becomes retroflected or retroverted. This is especially the case after involution has progressed so far that the uterus has sunk back into the cavity of the true pelvis.

Pfannkuch[1] has pointed out that the puerperal uterus retains the inclination towards the right side which is found in the pregnant, as well as in the non-pregnant and even fetal uterus.

Particular interest attaches to the condition of the inner surface of the uterus. Formerly it was believed that the whole mucous membrane was cast off, so that the muscles were denuded. This is not so. It has been ascertained that the separation takes place in the decidua itself, leaving a part from which the whole is regenerated. The new membrane is usually formed during the third and fourth weeks, and sometimes the restitution takes much more time.[2] According to Robin,[3] there is no continuous epithelial layer before the twentieth or twenty-fifth day, and the process of regeneration requires about sixty-five or seventy days. The repair is slowest in the placental site. Immediately after delivery its open veins are closed by the twofold process of muscular contraction and thrombosis. Later the walls of the veins coalesce; many of them undergo fatty degeneration and are absorbed. The thrombi are in part disintegrated, and carried away with the lochia or absorbed; in part they become organized.

The vaginal portion is exposed to considerable injury during the expulsion of the child. Since Dr. T. A. Emmet called attention to the rôle the laceration of this part plays in diseases of women, every gynecologist sees how frequently the

[1] Archiv für Gynäkologie, 1872, vol. iii., p. 351.
[2] Spiegelberg: Geburtshülfe, pp. 214–215.
[3] Depaul: Clinique obstétricale. Paris, 1876, p. 768-769.

consequences of this accident are found in those who consult him. Small lacerations are so common that they may be looked upon as belonging to a normal confinement, and have therefore to be mentioned in this connection.

The broad and the round ligaments have been dragged halfway up through the abdomen by the constantly increasing uterus. When, immediately after delivery, the fundus uteri sinks below the umbilicus, they are in an entirely relaxed and flabby condition. By degrees only the superfluous tissue is absorbed and their elasticity restored, so as to enable them to support the uterus in its proper position.

The womb is likewise for a long time deprived of the support given it from below by the vagina, the vulva, and the cellular tissue surrounding the organs of the pelvis. These parts never regain their pristine elasticity and narrowness, and it takes three or four weeks before their contraction is consummated. Matthews Duncan has found that the vaginal orifice is torn in every single instance.[1]

The muscles and the skin of the abdomen are in a flabby condition, and it is not before the lapse of five or six weeks that they recover what has not been irretrievably lost of their firmness. Consequently, at a period in which the uterus still surmounts the brim of the pelvis, it lacks support in front as well as from below and on the sides.

To sum up, then, anatomy and physiology teach us that the puerperal uterus is large, heavy, flabby, anteverted, and anteflected; that all the surrounding parts destined to support it are distended, soft, and yielding; that its interior presents one large wound bathed in a fluid rich in disintegrated tissue elements; that the placental site is pervaded by large venous sinuses filled with recently-formed blood-clots; that at least the vaginal orifice, and often other parts of the obstetric canal, present open wounds; that the processes of transformation, absorption, and regeneration require at least two months, and that the retrogression is most active during the second week.

What lesson is to be drawn for our practical guidance from these scientific facts?

III.

We have seen that the erect and the sitting postures increase

[1] J. M. Duncan: Papers on the Female Perineum, London, 1879, p. 9.

the anteversion, the anteflexion and the hanging belly normally found after delivery even in relation to a line drawn horizontally through the vertebral column while the woman is on her back, which line of course becomes perpendicular when she stands up; secondly, that while gravitation works favorably to counterbalance these conditions in the recumbent position, it works under the very best angle, that is to say perpendicularly on the long axis of the uterus in the erect posture, getting a good purchase by taking hold of the enlarged body which forms the long arm of a lever placed horizontally, while the cervix represents the short arm of the same almost placed perpendicularly; thirdly, that the uterus itself and all the supporting parts are soft, flexible, and yielding. From these premises I infer that *the upright and sitting postures ought to be carefully avoided until involution has proceeded so far that the uterus has receded from the anterior wall of the abdomen, and returned to the pelvic cavity.* In order to ascertain this, I feel every day how high the fundus uteri stands over the symphysis. This affords at the same time the great advantage that supervening inflammatory processes are immediately discovered. When once the uterus has subsided behind the symphysis I think it finds sufficient support in the true pelvis. This process takes a different length of time in different women. I have seen it performed in five days, but in most of my cases it takes about two weeks. Even when she is permitted to rise, sit up and walk a little about the room, I let the puerpera lie down for hours every day on a lounge, during the following week.

From a theoretical stand-point it would be best to keep the woman on her back, but the pressure against the couch becomes painful, and any position kept up for so long a time is very trying, as everybody knows who has been laid up for weeks on his back, say for an injury to the leg. Neither do I think this forced position necessary in childbed. After the first twenty-four hours, during which I invariably keep my patient lying on her back, I allow her to alternate this position with that on either side. The fact that the uterus inclines toward the right has little practical importance, for it is counterbalanced by a few hours' rest on the opposite side. I have noticed a considerable deviation toward one side or the other occurring from day to day. In making the above-men-

tioned examination of the height of the uterus, I therefore pay particular attention to the lateral deviation and instruct my patient to lie during the next twenty-four hours preferably on the opposite side. If the child lies beside the mother, it will be found that the uterus inclines to the same side, the mother turning toward the baby. It is therefore good to change their reciprocal position according to circumstances.

A too protracted dorsal decubitus would become a fault from the very stand-point from which we now consider the question, because it might lead to retroversion or retroflexion when once the fundus has passed the promontory. In patients who before their pregnancy suffered from these affections, we must particularly keep this point in view, and, other considerations permitting, let her get out of bed earlier than usual, or at least let her avoid the dorsal decubitus and make her lie alternately on either side or even semiprone. By ascertaining the position and shape of the uterus as far as possible through the abdominal wall in every particular case, and acting accordingly, we are able to prevent much trouble to our patient in aftertimes.

What I have said here must not be misunderstood, as if the position and the shape of the uterus were the only thing to be considered in determining the question of rest after delivery. It is only one point among others, but I take it to be a very important consideration.

Another point intimately connected with the one just made is, that in the upright and especially the sitting position the circulation is more or less impeded. Venous blood and lymph are apt to stagnate in the anteverted and anteflected enlarged uterus, whereby involution is retarded. It has also been noticed by Winckel[1] that hemorrhages occurred in consequence of displacements and flexions of the uterus, after the ninth day, when the women got up.

Even the movements performed by the puerpera while turning in bed ought to be slow. By too violent exertion thrombi may be detached in the placental site, and a severe hemorrhage brought on, or else the thrombus may be carried into the circulation and lodged as an embolus in some of the organs. This is one of the causes of death in those painful cases in

[1] Winckel: Die Pathologie u. Therapie des Wochenbettes, 2te Aufl., Berlin, 1869, p. 112.

which a perfctly healthy puerpera, who has been watched with the greatest care while lying in bed, and who deems all danger gone, drops dead after having got up. With this in view, I warn my patients not to pick up anything from the floor or else bend down for a fortnight after they have risen from their bed.

It must also be borne in mind that the so-called phlogogenic and pyrogenic substances,[1] that is to say, substances which, entering the system, produce inflammation or fever, are much more easily absorbed from a part when it is moved than when kept quiet. Movements tend to force the poison into the lymphatic vessels, and direct experiments on rabbits and women, by Kehrer,[2] have proved the lochial discharge to be of such a pyrogenic character. Now we know that absorption ceases when once granulation has formed a cover over a wound, and that this process takes eight days. Consequently very great caution in movements is advisable from this standpoint, at least for the time indicated.

Some practitioners recommend the use of a chamber-pot instead of a bed-pan in order to have the lochia in this way discharged from the vagina. The idea to avoid stagnation, putrefaction, and absorption of the lochial secretion is in itself worthy of every praise, and the practice recommended was an excellent one in bygone times, and is so yet in cases in which good nursing is impossible. It is certainly better for a poor woman, who has nobody to take care of her, to sit on a chamber-pot, and thus at least get rid of most of the lochia pent up by gravitation around the cervix uteri, one of the most dangerous places on account of the wounds almost constantly found here, than to lie uninterruptedly on her back and have her genital canal bathed in decomposed blood, mucus, and pus. But when we leave the pecuniary possibilities of the patient out of view, and only discuss what is the best treatment, then I hold it to be much better to keep the vagina clean by antiseptic injections, which not only brings away what has accumulated, but, by remaining in the vagina, disinfects the next portion descending from the uterus and contributes so powerfully to the healing of all the raw surfaces. To this end I use in

[1] Billroth: Allgemeine chirurgische Pathologie und Therapie, 2te Auflage, Berlin, 1866, pp. 98, 99 and 356.

[2] Ammann: Klinik der Wochenbettkrankheiten, München, 1876, p. 70.

entirely normal cases injections of a one-per-cent carbolic acid solution twice a day.

In the preceding remarks I have limited myself to the normal child-bed. The manifold pathological conditions which may determine our action lie beyond the scope of this paper. It is the question of rest after delivery in normal child-bed on which it would be desirable to come to an understanding. Combining the teachings of great obstetricians and the consideration of the anatomical and physiological conditions with my own practical experience, I have come to the result that the patient ought to be kept lying quietly in bed, alternately on her back and on her sides, until the uterus has contracted sufficiently to be hidden behind the symphysis, and until all raw surfaces in the obstetric canal are covered with granulations or healed, and that during two months she ought to avoid any great exertion.